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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,038	08/08/2000	Gregory S. Keller	206066	5444

25225 7590 01/08/2004
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EXAMINER

MATTHEWS, WILLIAM H

ART UNIT PAPER NUMBER

3738

DATE MAILED: 01/08/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/634,038

Applicant(s)

KELLER, GREGORY S.

Examiner

William H. Matthews (Howie)

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10-10-03.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 16, 17, 19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 16, 17, 19, and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Response to Arguments

1. Applicant's arguments filed 10-10-03 have been fully considered but they are not persuasive. Applicant contends Naughton does not anticipate the claims because Naughton doesn't include implantation of viable cells and lacks using autologous cells. Examiner disagrees because the claims only require the cells to be viable during the culture step, not necessarily in the implantation step. Furthermore paragraph 55 discloses autologous cells.
2. With regard to rejections over Boss and Daniels, applicant contends a "passing reference" and lack of reasonable expectation does not provide for obviousness. Examiner disagrees because reference was made to vocal cord tissue defects and one of ordinary skill in the art would have reasonably expected Boss's invention to work on other tissue defects.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8,11,16,17 are rejected under 35 U.S.C. 102(e) as being anticipated by Naughton US Pub. No. 2002/0038152 A1.

3. Naughton discloses in abstract and paragraphs 14-17,21-22,28-29,33-34,46-56,64,67, and 74 a method of corrective surgery of a vocal cord defect comprising the steps of retrieving cells from the patient's skin, culturing the cells in vitro with collagen, and implanting the cells by injection. The cultured cells may be fibroblasts or adipocytes.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4,6-11,16,17,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boss Jr US PN 5,591,444 in view of Daniels et al. US PN 3,949,073.

Boss Jr discloses in line 22 of col. 3 through line 37 of col. 6 a method of corrective surgery comprising the steps of obtaining dermal fibroblast cells from the patient, culturing the cells in vitro, and implanting the cells by injection or engraftment. Boss Jr discloses example applications of the method such as depressed scars and wrinkles, but not expressly for vocal cord and furthermore lacks the express disclosure of including collagen or a phosphate buffered solution. Daniels et al. teaches a method of corrective surgery in lines 17 of col. 2 through line 59 of col. 5 for depressed scars and wrinkles as well as vocal cord defects. Furthermore, Daniels et al. discloses a

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rinsing step utilizing a phosphate buffered saline solution and the use of collagen to cause rapid colonization after implantation.

Therefore it would have been obvious to one of ordinary skill in the art to modify the method disclosed by Boss Jr by utilizing a phosphate buffered solution to rinse the cells, incorporate collagen in order to cause rapid colonization after implantation, and apply the method to tissue of the vocal cord to correct vocal cord defects as taught by Daniels et al.

6. Claims 9-10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naughton US Pub. No. 2002/0038152 A1 in view of Boss Jr US PN 5,591,444.

Naughton discloses the steps of claims 9-10 as described above but lacks the express written disclosure of using the patient's serum as a medium and engraftment as a method of implantation. Boss Jr discloses in lines 24-31 a method for corrective tissue surgery wherein the cultured cells are placed in the patients serum for transportation and may be implanted by engraftment in order to repair the damaged tissue.

Therefore it would have been obvious to one of ordinary skill in the art to modify the method disclosed by Naughton by utilizing the patient's serum as a medium in order to provide a biocompatible medium implant the cultured cells by engraftment in order to repair the damaged tissue as taught by Boss Jr.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Matthews (Howie) whose telephone number is 703-305-0316. The examiner can normally be reached on Mon-Fri 7:00-4:30 (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine M. McDermott can be reached on 703-308-2111. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-2708 for regular communications and (703) 305-3590 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

WHM

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December 23, 2003



David H. Willse
Primary Examiner